

Ser. No. 09/485,940
Amdt. dated December 22, 2003
Reply to Office action of June 20, 2003

RCA 88741

Remarks/Arguments

Claim Objections

The office action points out the numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. The office kindly renumbered the claims 1-7. Applicant accepts the claim numbering as corrected with thanks. Accordingly, claims 3-4 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite regarding the limitation "said digital words" recited in claims 3 - 4 line 1. Claims 1-2 and 5-7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Heizman et al in view of Nobuo Yamazaki et al. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heizmann et al in view of Nobuo Yamazaki et al and further in view of Masanori Fujiwara et al.

Claim Rejections 35 U.S.C. §112, ¶1

The office action rejects claims 3-4 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3-4 recites the limitation "said digital words" in line 1. The office action states there is insufficient antecedent basis for this limitation in the claim. Claims 3-4 are canceled with this amendment and new claims 8-24 are presented. Applicant believes all new claims have antecedent basis for their limitations.

35 U.S.C. §103

The office action rejects claims 1-2 and 5-7 under 35 U.S.C. 103(a) as being unpatentable over Heizmann et al (US Patent No. 6,108,054) in view of Nobuo Yamazaki et al. ("DIGITAL GEOMETRY CORRECTION AND DEFLECTION CONTROL SYSTEM FOR MULTI-SCAN MONITORS", IEEE, 1995, pages 540-549).

With regard to claim 1, the office action states Heizmann et al discloses all the claimed subject matter. By this amendment, applicant cancels claim 1 and presents new claims 8-24. New independent claim 8 recites a video display

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apparatus, comprising: "a plurality of cathode ray tubes for projecting an image subject to image distortion on a display screen, each of said cathode ray tubes having at least one vertical deflection coil and at least one convergence coil mounted thereupon, a **first correction signal generator providing a first correction signal to said vertical deflection coils; a second correction signal generator providing a second correction signal to said convergence deflection coils;** a video pattern generator for generating said image upon said display, said image comprising rows and columns of spaced points generally defining a cross hatch grid; wherein said **first correction signal provides correction for selected columns of said cross hatch grid; wherein said second correction signal provides correction for at least one column of said cross hatch grid other than said selected columns.**

Support for the first correction signal generator providing a first correction signal to the vertical deflection coils is found in applicant's specification page 6 lines 33-35. "The vertical sawtooth signal is adjusted within generator 21 to provide pincushion, trapezoidal and S correction." And, on page 7 lines 2-4, "IN Figure 2 the vertical deflection generator and amplifier 80 is depicted within a dotted box to indicate that vertical waveform generation and shaping occurs within waveform generator 21."

Support in applicant's specification for the second correction signal generator providing a second correction signal can be found in applicant's specification on page 6 lines 25-30. Amplifiers 110, 210, 310 drive correction coils RVC, GVC and BVC with signals provided by digital convergence generator 30. Further, on page 9 lines 9-10, "A vertical rate analog convergence signal with an S shape may be employed to correct the inner pincushion distortion described above..."

Support in applicant's specification for the limitation "wherein said first correction signal provides correction for selected columns of said cross hatch grid; wherein said second correction signal provides correction for at least one column of said cross hatch grid other than said selected columns" is found on page 10 lines 8-16.

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Heizman fails to disclose or suggest **"a first correction signal generator providing a first correction signal to said vertical deflection coils; a second correction signal generator providing a second correction signal to said convergence deflection coils."**

Heizman discloses correcting convergence by applying correction signals to the horizontal and vertical deflection coils [as opposed to convergence coils]. ("...six correction voltages are directed to the six correction coils 261,262,266,267,271 and 272" Col 3 lines 33-40) Heizman further discloses, "The correction interpolation values are stored in the non-volatile memory 240.." (col 3 lines 41-42.) "Vertical interpolation values are stored in volatile memory 245. The results determined are then each output to the associated D/A converter." (Col 3 lines 48-50). Further, "Six correction voltages are correspondingly present at the outputs of the D/A converter array. The correction voltages are directed via an amplifier unit...to the six correction coils. (Col 3 lines 33-35).

Neither Heizman nor Yamazaki, nor any of the cited references taken individually or in combination, disclose or suggest a video display apparatus "...wherein said first correction signal provides correction for selected columns of said cross hatch grid; [and] wherein said second correction signal provides correction for at least one column of said cross hatch grid other than said selected columns."

Further, as reflected in new claim 24, one embodiment of the invention is directed to "The video display apparatus of claim 8 wherein said first correction signal is an S correction signal and said second correction signal is an S curvature correction signal." Support in applicant's specification for this embodiment is provided on page 10, lines 12-14. "Thus, S-correction in the vertical deflection coil minimizes the magnitude of S-curvature correction signal applied to the convergence coil..." None of the cited references, taken alone or in combination, teach applying S-correction to the vertical deflection coil and S-curvature correction to the convergence coil of a display.

New claims 9-23 are believed allowable by virtue of the fact that they depend on an allowable independent claim.

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be

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taken, the Examiner is invited to contact the applicant's attorney at (609) 734-6892, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,



By: Christine Johnson, Esq.

Reg. No. 38,507

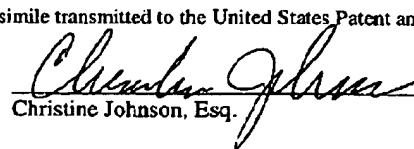
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December 22, 2003

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this amendment is being facsimile transmitted to the United States Patent and Trademark Office on:

December 22, 2003
Date


Christine Johnson, Esq.

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